Integrate quantitative Kano's model and IPA to identify the key quality elements

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Abstract

The aim of study is to establish a new methodology of Importance-performance analysis (IPA) to identify the key quality elements. The traditional IPA model does not take the asymmetrical and non-linear effects between customer satisfaction and quality attributes into consideration, so that it will not accurately analyze the priority ranking for improvement, leading to wrongful decision making. This paper puts forth a new decision making and analytic methodology. Firstly, the study exploits the quantitative Kano's Model to establish non-linear relationship between quality attributes and customer satisfaction, when quality attributes are functional and dysfunctional. Secondly, the analysis will employ quantified Kano indices adjust the importance and performance of quality attributes to improve the analysis of the traditional IPA. Finally, the new IPA methodology modified by quantitative Kano's model is illustrated in a case study.

Keyword：Importance-performance analysis, Kano's model, quality attribute, customer satisfaction